

Reply to Office Action of September 19, 2006**REMARKS/ARGUMENTS**

Claims 1-4, 6, 7, 9-13, 15, 16, 18, 20, 21, 23-29, 31, 32, and 37 are pending in this application. By this Amendment, claims 1, 6, 7, 10, 15, 16 and 24 are amended, and claims 5, 8, 14, 17, 19 and 34-36 are canceled without prejudice or disclaimer. Support for the claims can be found throughout the specification, including the original claims and the drawings. Withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

**I. Allowable Subject Matter**

The Examiner is thanked for the indication that claim 37 is allowed.

**II. Rejection Under 35 U.S.C. §102(b)**

The Office Action rejects claims 24-29, 31, 32 and 36 under 35 U.S.C. §102(b) over U.S. Patent No. 5,925,273 to Sherrill. Claim 36 is canceled. The rejection, in so far as it applies to the remaining claims, is respectfully traversed.

Independent claim 24 is directed to a heater assembly for a dryer, comprising, *inter alia*, a first coil array comprising a plurality of first coils, the plurality of first coils comprising a plurality of upper first coils positioned in the upper portion of the case, and a plurality of lower first coils positioned in the lower portion of the case, and a second coil array comprising a plurality of second coils, the plurality of second coils comprising a plurality of upper second coils positioned in the upper portion of the case, and a plurality of lower second coils positioned in the lower portion of the case, wherein the plurality of upper first and second coils are arranged in the

Reply to Office Action of September 19, 2006

upper portion such that an upper first coil is disposed between two upper second coils and an upper second coil is disposed between two upper first coils so as to form an alternating pattern of upper first and second coils in the upper portion, and the plurality of lower first and second coils are arranged in the lower portion such that a lower first coil is disposed between two lower second coils and a lower second coil is disposed between two lower first coils so as to form an alternating pattern of lower first and second coils in the lower portion. Sherrill neither discloses nor suggests at least such features, let alone the claimed combination of features.

Sherrill discloses a multistage heater assembly in which incoming air designated by the arrow A flows first across a first heater element 10a (which may be compared to the recited first coil array), and then across a second heater element 10b (which may be compared to the recited second coil array). The heater elements 10a and 10b are mounted on a plate 14 within a housing. As shown in the side view of the heater assembly in Figure 2 of Sherrill, the first heater element 10a includes six coils (which may be compared to the recited plurality of first coils), with three coils positioned adjacent one another above the plate 14, and three coils positioned adjacent one another below the plate 14 so as to form two parallel rows of first coils which face each other from opposite sides of the plate. Likewise, the second heater element 10b includes six coils (which may be compared to the recited plurality of second coils), with three adjacent coils positioned above the plate 14 facing three adjacent coils positioned below the plate 14.

Based on this arrangement of first and second heater elements 10a and 10b and their respective sets of coils as shown in Figure 2 of Sherrill, the second heater element 10b is clearly

Reply to Office Action of September 19, 2006

positioned downstream of and separate from the first heater element 10a. The first and second heater elements 10a and 10b are clearly positioned sequentially along an airflow direction within the housing, and the individual coils of the respective first and second heater elements 10a and 10b are in no way intermingled. For example, the three upper coils (those above the plate 14) of the first heater element 10a and the three upper coils (those above the plate 14) of the second heater element are positioned sequentially along the airflow path through the heater, without interspersions or intermixing between the coils of the first and second heater elements 10a and 10b. Likewise, the three lower coils (those below the plate 14) of the first heater element 10a and the three lower coils (those below the plate 14) of the second heater element 10b are also positioned sequentially along the airflow path, without any intermingling therebetween.

Sherrill neither discloses nor suggests that an upper coil from the first heater element 10a is positioned between two upper coils from the second heater element 10b, nor that an upper coil from the second heater element 10b is positioned between two upper coils from the first heater element 10a, as are the upper first and second coils recited in independent claim 24. Likewise, Sherrill neither discloses nor suggests that a lower coil from the first heater element 10a is positioned between two lower coils from the second heater element 10b, nor that a lower coil from the second heater element 10b is positioned between two lower coils from the first heater element 10a, as are the lower first and second coils recited in independent claim 24. Thus, Sherrill necessarily neither discloses nor suggests that the upper coils of the first and second heater elements 10a and 10b form an alternating pattern above the plate 14, and the lower coils

Reply to Office Action of September 19, 2006

of the first and second heater elements 10a and 10b form an alternating pattern below the plate 14, as do the upper and lower first and second coils recited in independent claim 24.

Accordingly, it is respectfully submitted that independent claim 24 is not anticipated by Sherrill, and thus the rejection of independent claim 24 under 35 U.S.C. §102(b) over Sherrill should be withdrawn. Dependent claims 25-29, 31 and 32 are allowable at least for the reasons set forth above with respect to independent claim 24, from which they depend, as well as for their added features.

### **III. Rejections Under 35 U.S.C. §103(a)**

The Office Action rejects claims 10-19, 21, 23 and 35 under 35 U.S.C. §103(a) over Sherrill. Claims 14, 17, 19 and 35 are canceled. The rejection, in so far as it applies to the remaining claims, is respectfully traversed.

Independent claim 10 is directed to a heater assembly for a dryer, comprising, *inter alia*, independent first and second coil arrays provided in the air passage and configured to alternately cross the plate between the upper and lower passages, wherein the first coil array comprises a plurality of first coils alternately positioned in the upper and lower passages, and the second coil array comprises a plurality of second coils alternately positioned in the upper and lower passages such that the first and second coils positioned in the upper passage form an alternating pattern in the upper passage, and the first and second coils positioned in the lower passage form an alternating pattern in the lower passage, wherein each of the plurality of first coils is positioned substantially directly across from a corresponding second coil of the plurality of second coils on

Reply to Office Action of September 19, 2006

the opposite side of the plate. As set forth above, Sherrill neither discloses nor suggests at least such features, let alone the claimed combination of features.

More specifically, as set forth above, the coils of the first and second heater elements 10a and 10b disclosed by Sherrill are positioned sequentially, and there is no intermingling between these coils. Thus, Sherrill neither discloses nor suggests the first and second coils positioned in the upper passage form an alternating pattern in the upper passage, and the first and second coils positioned in the lower passage form an alternating pattern in the lower passage, as recited in independent claim 10. Additionally, as set forth above, the upper coils of the first element 10a are positioned across from the lower coils of the first element 10a, and the upper coils of the second element 10b are positioned across from the lower coils of the second element 10b. Sherrill neither discloses nor suggests that each of the plurality of first coils is positioned substantially directly across from a corresponding second coil of the plurality of second coils on the opposite side of the plate, as recited in independent claim 10.

Further, it would not have been obvious to modify this sequential arrangement of the coils of the first and second heater elements 10a and 10b as disclosed by Sherrill. Such a rearrangement of the coils to in any way alternate, intermingle, or overlap the coils of the first and second heater elements 10a and 10b would require a complete redesign of the plate 14, mounting structure, crossover portions 22a and 22b, and terminal connections 28 to retain independent control of the heater elements 10a and 10b. Such a modification would

Reply to Office Action of September 19, 2006

significantly affect the structural, mechanical, and electrical integrity of Sherrill's design, while adding complexity and cost.

For at least these reasons, it is respectfully submitted that independent claim 10 is allowable over Sherrill, and thus the rejection of independent claim 10 under 35 U.S.C. §103(a) over Sherrill should be withdrawn. Dependent claims 11-13, 15, 16, 18, 21 and 23 are allowable over Sherrill at least for the reasons set forth above with respect to independent claim 10, from which they depend, as well as for their added features.

The Office Action rejects claims 1-9 and 20-34 under 35 U.S.C. §103(a) over U.S. Patent No. 4,700,495 to Drews et al. (hereinafter "Drews") in view of Sherrill. Claims 5, 8, 30, 33 and 34 are canceled. The rejection, in so far as it applies to the remaining claims, is respectfully traversed.

Independent claim 1 is directed to a dryer which includes a heater assembly. Independent claim 1 recites that the heater assembly includes, *inter alia*, independent first and second coil arrays provided in the air passage and each configured to cross the plate between the upper and lower passages, wherein the first coil array comprises a plurality of first coils alternately positioned in the upper and lower passages, and the second coil array comprises a plurality of second coils alternately positioned in the upper and lower passages such that the first and second coils positioned in the upper passage form an alternating pattern in the upper passage, and the first and second coils positioned in the lower passage form an alternating pattern in the lower passage, wherein each of the plurality of first coils is positioned substantially directly across from

Reply to Office Action of September 19, 2006

a corresponding second coil of the plurality of second coils on the opposite side of the plate.

The features of independent claim 24 are set forth above.

As acknowledged by the Examiner in the remarks regarding independent claims 1 and 24, Drews neither discloses nor suggests such features. Further, as set forth above, Sherrill neither discloses nor suggests that the coils of the first and second heater elements 10a and 10b may be in any way intermingled, mixed or alternated, nor that coils of the first element 10a are positioned directly across the plate from coils of the second element 10b. Thus, Sherrill fails to overcome the deficiencies of Drews. Accordingly, it is respectfully submitted that independent claims 1 and 24 are allowable over the applied combination, and thus the rejection of independent claims 1 and 24 under 35 U.S.C. §103(a) over Drews and Sherrill should be withdrawn. Dependent claims 2-4, 6, 7, 9, 20, 25-29, 31 and 32 are allowable over Drews and Sherrill at least for the reasons set forth above with respect to independent claims 1 and 24, from which they respectively depend, as well as for their added features.

#### **IV. Conclusion**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **JOANNA K. MASON**, at the telephone number listed below.

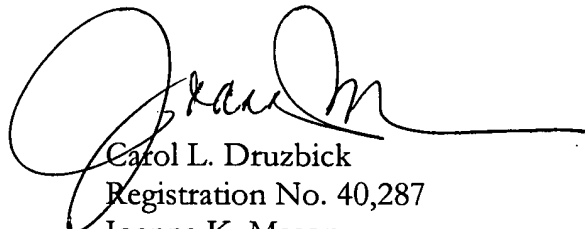
Serial No. **10/721,179**

Docket No. **K-0586**

Reply to Office Action of September 19, 2006

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,



Carol L. Druzbeck  
Registration No. 40,287  
Joanna K. Mason  
Registration No. 56,408

P.O. Box 221200  
Chantilly, Virginia 20153-1200  
(703) 766-3777  
**Date: February 16, 2007**

**Please direct all correspondence to Customer Number 34610**